

1 CLAIMS

2  
3 1. A method of treatment of a patient having certain genetic defects, the method comprising the  
4 following steps:

5 making a DNA sequence determination if a patient has at least one genetic defect selected  
6 from the class of GST defects or CYP450 defects indicating a propensity to redox imbalance; and  
7 upon said determination, administering a glutathione pathway enhancing and detoxifying  
8 compound to said patient.

9 2. The method according to claim 2, further comprising the following step:

10 recording said DNA sequence determination onto electronic media for storage.

11 3. The method according to claim 3, further comprising the following step:

12 Connecting translation software to said electronic media having said DNA sequence  
13 determination and in said translation software inserting hyperlinks to a data base for information  
14 concerning any abnormal DNA sequence to readily access further information concerning any  
15 said abnormal DNA sequence.

16 4. The method according to claim 4, further comprising the following step:

17 incorporating an electronic security system into said electronic media.

18 5. The method according to claim 1, further comprising the following step:

19 Connecting translation software to said electronic media having said DNA sequence  
20 determination and further connecting output from said translation software to software containing  
21 hyperlinks with said DNA sequence determination to a data base for information concerning any  
22 abnormal DNA sequence to readily access further information concerning any said abnormal  
23 DNA sequence.

- 1 6. The method according to claim 5, further comprising the following step:  
2 incorporating an electronic security system into said electronic media.
- 3 7. The method according to claim 1, further comprising:  
4 subsequent to making a DNA sequence determination if a patient has said at least one  
5 genetic defect, testing said patient's anti-oxidant capacity.
- 6 8. The method according to claim 1, further comprising:  
7 subsequent to making a DNA sequence determination if a patient has said at least one  
8 genetic defect, testing said patient's total thiol.
- 9 9. The method according to claim 1, further comprising:  
10 subsequent to making a DNA sequence determination if a patient has said at least one  
11 genetic defect, testing said patient's glutathione level.
- 12 10. A method of treatment of a patient having certain genetic defects, the method comprising the  
13 following steps:  
14 determining if a patient has at least one genetic defect selected from the class of GST  
15 defects or CYP450 defects; and  
16 testing said patient's anti-oxidant capacity;  
17 upon testing said patient's anti-oxidant capacity, if said anti-oxidant capacity is  
18 inadequate, administering a glutathione pathway enhancing and detoxifying compound to said  
19 patient.
- 20 11. A method of treatment of a patient having certain genetic defects, the method comprising the  
21 following steps:  
22 determining if a patient has at least one genetic defect selected from the class of GST

1 defects or CYP450 defects;  
2 testing said patient's total thiol;  
3 upon testing said patient's total thiol, if said total thiol shows glutathione pathway  
4 impairment, administering a glutathione pathway enhancing and detoxifying compound to said  
5 patient.

6 12. A method of treatment of a patient having certain genetic defects, the method comprising the  
7 following steps:  
8 determining if a patient has at least one genetic defect selected from the class of GST  
9 defects or CYP450 defects;  
10 testing said patient's glutathione level;  
11 upon testing said patient's glutathione level, if said glutathione level is inadequate,  
12 administering a glutathione pathway enhancing and detoxifying compound to said patient.

13 13. A method of enabling a person to determine propensity to disease caused from xenobiotic  
14 influences, the method comprising the following steps:  
15 making a present at least one DNA sequence determination from said person;  
16 recording said present at least one DNA sequence determination onto electronic media for  
17 storage;  
18 comparing said present at least one DNA sequence determination electronically with a  
19 known data base to make a determination if a defective DNA sequence is present;  
20 making a former DNA sequence determination of said at least one DNA sequence from  
21 said person from an earlier point in life;  
22 recording said former DNA sequence determination onto electronic media for storage;

1 comparing said former DNA sequence determination with said person's present DNA  
2 sequence to determine if xenobiotic alteration of at least one cell has occurred causing said present  
3 defective DNA sequence.

4 14. A method of enabling a person to determine propensity to disease caused from inherited  
5 influences for at least one DNA sequence, the method comprising the following steps:

6 making a present at least one DNA sequence determination from said person;  
7 recording said present at least one DNA sequence determination onto electronic media for  
8 storage;

9 comparing said present at least one DNA sequence determination electronically with a  
10 known data base to make a determination if a defective DNA sequence is present;

11 making a former DNA sequence determination of said at least one DNA sequence from  
12 said person from an earlier point in life;

13 recording said former DNA sequence determination onto electronic media for storage;

14 comparing said former DNA sequence determination with said person's present DNA  
15 sequence to determine if xenobiotic alteration of at least one cell has occurred causing said present  
16 defective at least one DNA sequence;

17 making an ancestral DNA sequence determination of said at least one DNA sequence from  
18 at least one ancestor of said person;

19 recording said at least one DNA sequence determination onto electronic media for storage;

20 comparing said ancestral DNA sequence determination with said former DNA sequence  
21 determination and with said person's present DNA sequence determination to determine if  
22 xenobiotic alteration of at least one cell has occurred or if said present defective DNA sequence is

1 inherited.

2 15. The method according to claim 14, further comprising the following step:

3 Connecting translation software to said electronic media having said DNA sequence  
4 determination and in said translation software inserting hyperlinks to a data base for information  
5 concerning any abnormal DNA sequence to readily access further information concerning any  
6 said abnormal DNA sequence.

7 16. The method according to claim 15, further comprising the following step:

8 incorporating an electronic security system into said electronic media.

9 17. The method according to claim 14, further comprising the following step:

10 Connecting translation software to said electronic media having said DNA sequence  
11 determination and further connecting output from said translation software to software containing  
12 hyperlinks with said DNA sequence determination to a data base for information concerning any  
13 abnormal DNA sequence to readily access further information concerning any said abnormal  
14 DNA sequence.

15 18. The method according to claim 17, further comprising the following step:

16 incorporating an electronic security system into said electronic media.

17 19. A method of evaluating patient condition, the method comprising the following steps:

18 determining if a patient has at least one genetic defect by electronically comparing said  
19 patient's DNA sequence with known non-defective DNA sequences and generating electronic  
20 output of said at least one genetic defect;

21 connecting translation software to said output of said at least one genetic defect;

22 compiling into electronic form said patient's symptom data and objective condition data;

1 electronically correlating said patient's symptom data and objective condition data with  
2 said output of said at least one genetic defect;  
3 generating risk data output from electronically correlating said patient's symptom data and  
4 objective condition data with said output of said at least one genetic defect to calculate potential  
5 risk data for said patient from said patient's DNA sequence and said patient's symptom data and  
6 objective condition data.

7 20. The method according to claim 19, further comprising:

8 based on said risk data output for said patient from said DNA sequence and said patient's  
9 symptom data and objective condition data, administering a prophylactic medication to said  
10 patient.

11 21. The method according to claim 20, further comprising:

12 further connecting said output of said at least one genetic defect from said translation  
13 software to electronic media containing hyperlinks with said DNA sequence determination to at  
14 least one data base for information concerning any abnormal DNA sequence to readily access  
15 further information concerning any said abnormal DNA sequence.

16 22. The method according to claim 19, further comprising:

17 compiling output from electronically correlating said patient's symptom data and objective  
18 condition data with output from said translation software of said DNA sequence determination;  
19 based on output from compiling output from electronically correlating said patient's  
20 symptom data and objective condition data with output from said translation software of said  
21 DNA sequence determination, generating hyperlinks to a data base for information concerning  
22 interplay of any abnormal DNA sequence and said patient's symptom data and objective

1 condition data.

2 23. The method according to claim 22, further comprising the following step:

3 incorporating an electronic security system into said electronic media.

4 24. A method of determination of propensity to complications from pregnancy based on certain  
5 genetic defects, and prophylactic treatment of a pregnant patient having certain genetic  
6 defects, the method comprising the following steps:

7 making a determination if a pregnant patient has at least one genetic defect selected from  
8 the class of GST defects or CYP450 defects; and

9 upon making said determination, administering as a prophylactic a glutathione pathway  
10 enhancing and detoxifying compound to said patient.

11 25. A method of determination of propensity to complications from a particular vaccine based on  
12 certain genetic defects, and prophylactic treatment of a patient proposed for a vaccine having  
13 certain genetic defects, the method comprising the following steps:

14 making a determination if a patient proposed to be administered a vaccine has at least one  
15 genetic defect selected from the class of GST defects or CYP450 defects; and

16 upon making said determination, administering as a prophylactic a glutathione pathway  
17 enhancing and detoxifying compound to said patient.

18 26. A method of determination of propensity to complications from COPD based on certain

19 genetic defects, and prophylactic treatment of a COPD patient having certain genetic defects,  
20 the method comprising the following steps:

21 making a determination if a COPD patient has at least one genetic defect selected from the  
22 class of GST defects or CYP450 defects; and

1           upon making said determination, administering as a prophylactic a glutathione pathway  
2   enhancing and detoxifying compound to said patient.

3   27. A method of extending the life of a terminally ill patient having certain genetic defects, and  
4   prophylactic treatment of said patient while maintaining relatively better quality of life for  
5   said patient, the method comprising the following steps:  
6           making a determination if a terminally ill patient has at least one genetic defect selected  
7   from the class of GST defects or CYP450 defects; and  
8           upon making said determination, administering as a prophylactic a glutathione pathway  
9   enhancing and detoxifying compound to said patient.

10   28. The method according to claim 27, further comprising the following step:  
11           monitoring the total thiol of said patient, and upon increase in sulfur excretion,  
12   augmenting the dose of said glutathione pathway enhancing and detoxifying compound to said  
13   patient.

14   29. A combination for evaluating a proposed treatment course for a patient comprising:  
15           a DNA sequencing machine for determining at least if a patient tissue sample has a GST  
16   defect;  
17           a clinical chemistry analyzer for determining chemical levels in said patient from a tissue  
18   sample;  
19           a general purpose computer having a database capable of generating output from the  
20   electronic results of said clinical chemistry analyzer and said DNA sequencing machine to enable  
21   a health care professional to evaluate a patient's disease state and preferred treatment.

22   30. A method of creating probable outcome data for a particular patient using DNA sequence data



1 and patient data based on prior patient experience, the method comprising:  
2 obtaining in electronic form at least one DNA sequence data from a patient;  
3 reducing to a standard coding system in electronic form a selected data set for each said  
4 patient of patient symptoms and collecting in electronic form objective patient data;  
5 reducing to a standard coding system in electronic form treatment methodology for said  
6 patient;  
7 reducing to a standard coding system in electronic form empirical outcomes for said  
8 patient;  
9 inputting said at least one DNA sequence data, said selected data set, said treatment  
10 methodology, and said empirical outcome into storage media accessible from a general purpose  
11 computer;  
12 arranging said at least one DNA sequence data, said selected data set, said treatment  
13 methodology, and said empirical outcome into a database so that upon electronic entry for a given  
14 proposed patient for whom said at least one DNA sequence data, patient symptoms and objective  
15 patient data are known, a table having one axis of empirical outcomes and a second axis of  
16 proposed treatment methodologies is generated with a frequency count for each empirical  
17 outcome given a proposed treatment methodology from which a most favorable proposed  
18 treatment methodology can be selected for a particular patient.

19 31. The method according to claim 30, enabling artificially intelligent determination of most  
20 favorable treatment methodology, further comprising the following steps:  
21 weighting by an objective score said empirical outcomes in a desired order;  
22 subsequent to inputting said at least one DNA sequence data, said selected data set, said

1 treatment methodology, and said empirical outcome into storage media accessible from a general  
2 purpose computer, applying a statistical regression analysis algorithm to identify the most  
3 favorable outcome for each said treatment methodology for a given set of DNA sequence data,  
4 patient symptoms and objective patient data;

5 utilizing said most favorable outcome for each said treatment methodology for a given set  
6 of DNA sequence data, patient symptoms and objective patient data to select and generate a most  
7 favorable treatment methodology for a given set of DNA sequence data, patient symptoms and  
8 objective patient data;

9 so that upon entry for a particular patient of DNA sequence data, patient symptoms and  
10 objective patient data, output is generated of at least one recommended treatment methodology  
11 which is most favorable based on statistical analysis of all database patients' DNA sequence data,  
12 patient symptoms and objective patient data.

13 32. The method according to claim 31, further comprising:

14 inserting a pre-directed treatment methodology into said database for at least one set of  
15 DNA sequence data, patient symptoms and objective patient data.

16 33. The method according to claim 32, said method further comprising:

17 said DNA sequences being all GST DNA sequences and CYP450 sequences.

18 34. The method according to claim 31, further comprising:

19 for each treatment methodology that is not pre-directed, analyzing each said DNA  
20 sequence data, patient symptoms and objective patient data to examine if each said DNA  
21 sequence data, patient symptoms and objective patient data affected said empirical outcome for all  
22 patients in a statistically significant way by applying a statistical regression software package to

1 analyze for statistically significant variation in said empirical outcome for each said treatment  
2 methodology  
3 for a change in at least any one of said DNA sequence data, patient symptoms and objective  
4 patient data;  
5 upon output indicating a statistically significant variation in outcome for said at least any  
6 one of each said DNA sequence data, patient symptoms or objective patient data, and upon failure  
7 to provide for a particular patient at least some part of DNA sequence data, patient symptoms and  
8 objective patient data in said database, output is generated indicating recommended treatment  
9 methodology which is most favorable for said particular patient and also indicating that  
10 statistically significant data is missing in order of priority of most significant to least significant  
11 which may affect outcome for the recommended treatment methodology to enable a health care  
12 provider to obtain said missing data.  
13 35. The method according to claim 34, further comprising:  
14 inserting a pre-directed treatment methodology into said database for at least one given set  
15 of DNA sequence data, patient symptoms and objective patient data.  
16 36. The according to claim 35, said method further comprising:  
17 said DNA sequences being all GST DNA sequences and CYP450 sequences.  
18 37. A method of enabling rapid consideration of the impact of genetic characteristics by a person,  
19 including a health care provider, the method comprising the following steps:  
20 electronically accessing at least one selected DNA sequence for a person;  
21 recording a data base of hyperlinks to information concerning said at least one DNA  
22 sequence;

1 enabling access to a data base of comparative DNA sequences so that any abnormalities in  
2 said at least one selected DNA sequence can be ascertained;

3 recording translation software for reading said at least one DNA sequence and for linking  
4 said at least one DNA sequence determination to said data base of hyperlinks so that said person,  
5 can utilize said hyperlinks for said person's at least one selected DNA sequence to access medical  
6 information concerning said at least one selected DNA sequence.

7 38. The method according to claim 34, said method further comprising:

8 said DNA sequences being at least one of the GST DNA sequences and CYP450  
9 sequences.

10 39. A combination enabling rapid consideration of the impact of genetic characteristics by a  
11 person, including a health care provider, the combination comprising:

12 means for determining at least one selected DNA sequence for a person;

13 means for recording said at least one DNA sequence onto electronic media for permanent  
14 storage;

15 means for recording a data base of hyperlinks to information concerning said at least one  
16 DNA sequence;

17 means for enabling access to a data base of comparative DNA sequences so that any  
18 abnormalities in said at least one selected DNA sequence can be ascertained;

19 means for recording translation software for reading said at least one DNA sequence and  
20 for linking said at least one DNA sequence determination to said data base of hyperlinks so that  
21 said person can utilize said hyperlinks for said person's at least one selected DNA sequence to  
22 access medical information concerning said at least one selected DNA sequence.

40. The combination according to claim 36, said combination further comprising:  
said DNA sequences being at least one of the GST DNA sequences and CYP450  
sequences.